

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed May 9, 2003. To clarify various aspects of claimed subject matter, Applicant amends Claims 1, 21, 27-34, 36-42, 50, 55, 56, 65, 69, 75, 77, 79-81, 87, 92, 97, and 102. Applicant also introduce new Claims 103-106 and cancels Claims 25-26, 43, 48-49, 54, 66, 76, and 91. In order to advance prosecution of this Application, Applicant has responded to each notation by the Examiner. Applicant submits that all of the pending claims are allowable over the cited references. Applicant respectfully requests reconsideration and favorable action in this case.

Subject Matter Indicated as Allowable

Applicant notes with appreciation the Examiner's statement that Claims 2, 4-5, 57, 59-60, 69-74, and 81-82 contain allowable subject matter and would be allowed if rewritten in independent form. Applicant respectfully declines that invitation at this time, as amended independent Claims 21, 42, 65, and 75 are believed to be patentable over the cited references.

Applicant also appreciates the Examiner's notation that Claims 25-26, 48-49, 54-55 and 91-92 contain allowable subject matter and would be allowed if rewritten in independent form. Although Applicant believes all original claims are allowable, to expedite issuance of this application Applicant has rewritten Claims 25, 48, 54, and 91 in independent form. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 50, 87, 103, and 105 and all claims depending therefrom.

The Non-Statutory Double Patenting Rejection

The Examiner has rejected Claims 1, 3, 6-20, 56, 58, and 61-64 under the judicially created doctrine of obviousness-type double patenting over U.S. Patent No. 6,335,820 B1 in view of U.S. Patent No. 6,181,464 by *Kidorf*. The Examiner provides that a timely filed terminal disclaimer in compliance with 37 C.F.R. 1.321(c) may be used to overcome this provisional rejection. Without conceding the veracity of the Examiner's rejection under the judicially created doctrine of obviousness-type double patenting, and solely for the purpose of advancing prosecution in this case, Applicant will consider filing a terminal disclaimer upon receiving confirmation that all pending claims subject to this rejection are otherwise in condition for allowance.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected Claims 21-24, 27-47, 65-68, 75-80, and 83-86 under 35 U.S. § 103(a) as being unpatentable over U.S. Patent No. 5,623,508 by Grubb et al. ("*Grubb '508*") in view of U.S. Patent No. 4,715,679 by Bhagavatula ("*Bhagavatula*"). Claims 50-53, 87-90, and 93-96 stand rejected under 35 U.S. § 103(a) as being unpatentable over *Grubb '508* in view of U.S. Patent No. 6,342,965 by Kinoshita ("*Kinoshita*"). Claims 97-98 and 100-102 stand rejected under 35 U.S. § 103(a) as being unpatentable over *Grubb '508* in view of U.S. Patent 6,344,922 by Grubb et al. ("*Grubb '922*"). Finally, the Examiner has rejected Claim 99 under 35 U.S. § 103(a) as being unpatentable over *Grubb '508* in view of *Grubb '922*, as applied to Claim 97 above, and further in view of *Bhagavatula*.

Independent Claims 21, 42, 65, and 75 are patentable over all cited references.

Applicant submits that amended Claim 21 is patentable over *Grubb '508* in view of *Bhagavatula*. Among other features, amended Claim 21 recites, in part, "a pump input port coupled to the one or more optical fibers, the first length of Raman amplifier fiber being positioned between the signal input port and the pump input port and the second length of Raman amplifier fiber being positioned between the pump input port and signal output port."

Grubb '508 and *Bhagavatula*, taken alone or in combination, fail to teach or suggest a number of elements of amended Claim 21. For example, nowhere does *Grubb '508* contemplate "a pump input port coupled to the one or more optical fibers, the first length of Raman amplifier fiber being positioned between the signal input port and the pump input port and the second length of Raman amplifier fiber being positioned between the pump input port and signal output port."

The *Bhagavatula* disclosure describes an optical wave-guide fiber for use a single-mode optical wave-guide. *Abstract*. Nowhere does *Bhagavatula* contemplate "a pump input port coupled to the one or more optical fibers, the first length of Raman amplifier fiber being positioned between the signal input port and the pump input port and the second length of Raman amplifier fiber being positioned between the pump input port and signal output port."

For at least these reasons, Applicant submits that *Grubb '508* and *Bhagavatula*, taken alone or in combination, fail to teach or suggest amended Claim 21. Applicant respectfully requests withdrawal of the rejection and full allowance of amended independent Claim 21 and all claims depending therefrom.

Applicant submits that amended independent Claims 42, 65, and 75 are patentable over *Grubb '508* in view of *Bhagavatula* for at least the reasons discussed above. Thus, Applicant respectfully requests withdrawal of the rejection and full allowance of amended Claims 42, 65, and 75 and all claims depending therefrom.

Independent Claims 97 and 102 are patentable over all cited references

Applicant submits that amended Claim 97 is patentable over *Grubb '508* in view of *Grubb '922*. Among other features, amended Claim 97 recites, in part, a multi-stage optical amplifier comprising "a distributed Raman amplifier coupled to the signal input port or signal output port."

Grubb '508 and *Grubb '922*, taken alone or in combination, fail to teach or suggest a number of elements of amended Claim 97. For example, as confirmed by the Examiner, *Grubb '508* does not contemplate "a distributed Raman amplifier coupled to the signal input port." *Office Action at 7*. Consequently, *Grubb '508* fails to teach or suggest a multi-stage optical amplifier having "a distributed Raman amplifier coupled to the signal input port or signal output port."

The *Grubb '922* disclosure describes an optical signal-varying device that provides pump energy in a plurality of wavelengths. *Abstract*. As confirmed by the Examiner, *Grubb '922* also does not contemplate "a distributed Raman amplifier coupled to a signal input port." *Office Action at 7*. Consequently, *Grubb '922* fails to teach or suggest a multi-stage optical amplifier having "a distributed Raman amplifier coupled to the signal input port or signal output port."

For at least these reasons, Applicant submits that *Grubb '508* and *Grubb '922*, taken alone or in combination, fail to teach or suggest amended Claim 97. Applicant respectfully

requests withdrawal of the rejection and full allowance of amended independent Claim 97 and all claims depending therefrom.

Applicant submits that amended independent Claim 102 is patentable over *Grubb* '508 in view of *Grubb* '922 for at least the reasons discussed above in this subsection. Thus, Applicant respectfully requests withdrawal of the rejection and full allowance of amended Claim 102 and all claims depending therefrom.

Information Disclosure Statement

The Examiner has requested that the Applicant present a concise statement as to the relevance of the documents listed in the Information Disclosure Statement (IDS). Applicant respectfully submits that it would be improper to highlight any particular ones of the cited references to the exclusion of others. Applicant is concerned that this type of action could unfairly be interpreted as calling undue attention to one or more references to divert attention from others that are not specifically discussed. All documents in the IDS have been brought to Applicant's attention (i.e., are known by Applicant) and are considered relevant enough to be included in the IDS. As Applicant is not required to place a rank of materiality on any particular reference over another and because such action could prejudice Applicant, Applicant respectfully declines Examiner's request with respect to the IDS. Applicant, however, stands ready to address any particular reference that the Examiner may wish to discuss.

CONCLUSION

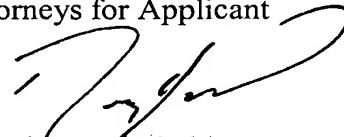
Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests reconsideration and full allowance of all pending Claims.

Applicant has included a check for \$84.00 for the two additional claims and a check for \$55.00 for a one-month extension of time. Applicant believes that no other fees are due, however, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

If the Examiner feels that a conference would advance prosecution of this Application in any manner, Douglas M. Kubehl stands willing to conduct such a telephone interview at the convenience of the Examiner. Mr. Kubehl may be reached at 214-953-6486.

Respectfully submitted,

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